

OPEN DATA ACCESS FRAMEWORK

Purpose:

The Citizens Utility Board and the Environmental Defense Fund propose this Open Data Access Framework (“the Framework”) as suggested standards for the types of energy usage data Illinois retail electricity customers and authorized third-parties may request from utilities; the means by which such data is transmitted; and the format in which such data is provided. The Framework proposes standard service guidelines for Illinois electric utilities which have opted to participate in the Energy Infrastructure Modernization Act (“EIMA”), including the deployment of Advanced Metering Infrastructure (“AMI”)¹ after the Illinois Commerce Commission (“ICC” or “Commission”) issues final orders in dockets addressing this Framework and the means by which customers authorize third parties to access customer usage data.²

This Framework is intended to outline principles and standards and aid the Commission, utilities, and their customers in developing clear expectations and procedures. Doing so provides protections for utilities and consumers while also encouraging innovative utilization of customer electricity usage data enabled by smart grid and smart meter deployment. Such benefits include new dynamic pricing options, expanded energy efficiency programs, and new in-home energy management technologies that will, taken together and with the help of utilities and authorized third parties, provide Illinois customers a chance to directly benefit from smart grid investments by creating a more precise window into how they use electricity.

Scope:

This Framework applies to participating utilities and their retail customers. This Framework is not intended to apply to alternative retail electric suppliers (“ARES”), for whom separate data transmission policies and processes exist and are updated from time to time. In particular this Framework outlines the expected standard level of service applicable to all retail electricity customers in Illinois who are taking service from participating utilities.

Organizing Principles:

- The customer can and should be able to receive usage data in as close to real-time as practicable.
- The customer has the ability to authorize the utility to share his/her usage data with third parties, and the customer can revoke that third party access at the customer’s discretion.
- For the format and methods of provisioning a customer and his/her authorized third party with the customer’s retail electric usage data, the utility shall, to the best of its ability, follow industry standards and protocols developed through national, multi-stakeholder processes.

¹ At this time both Commonwealth Edison Company (“ComEd”) and the Ameren Illinois Company (“Ameren”) (together, “participating utilities”) have chosen to participate.

² At this time, the Commission is considering this issue in ICC Docket No. 14-0507

Definitions:

Usage Data: Information and statistics relating to a specific and identifiable retail customer's power (kW) and energy (kWh) use. Specific types of usage data include:

- *Interval Data:* Usage data collected and compiled for a particular interval of time, including but not limited to 1-hour usage increments, 30-minute usage increments, 15-minute usage increments, and 1-minute usage increments. Unless otherwise noted, "usage data" in the context of the Framework refers to interval data.
- *Summary Data:* Interval usage data provided at an aggregated, monthly format.
- *Billing Data:* Usage data used for the purposes of generating a bill for electric service, including delivery/distribution and/or supply service.
- *Billing-Quality Data:* Usage data reviewed and verified by an electric utility's internal quality assurance processes as sufficient for the purposes of billing a customer.
- *Preliminary Data:* Usage data that has not yet gone through billing system processes for quality assurance.

Participating Utility: This Framework shall apply to those Illinois electric utilities which have opted to participate in the Energy Infrastructure Modernization Act ("EIMA") by committing to smart grid investments, including the deployment of Advanced Metering Infrastructure ("AMI").

Third Party: Any entity, not including the customer or utility, which has customer authorization to access that customer's usage data. For the purposes of this Framework, a Third Party is not a reference to an alternative retail electric supplier ("ARES").

Customer-Specific Data: Customer specific billing, usage or load shape data (see 220 ILCS 5/16-122).

Personal Customer Information: Information that could be used to identify a customer: name, address, telephone number, account number, one individual's usage (see 220 ILCS 5/16-108.6(d)).

Customer Electronic Signature: A customer's affirmative indication of consent to share his/her usage data with a third party issued via a digital interface (e.g. a check box on a webpage).

Customer Authorization: *How do customers authorize third parties to access usage data on their behalf and how is that authorization demonstrated by a customer?*

The Illinois Commerce Commission, in its Final Order and Amended Order in ICC Docket No. 15-0073, reached the following conclusions:

- Section 16-122 and 16-108.6 of the Public Utilities Act require Ameren Illinois Company d/b/a Ameren Illinois and Commonwealth Edison Company to secure customers' interval usage data; but, with proper customer consent and authorization, the

customer's usage information may be released to a non-RES third party." The Commission

- The authorization language established by this Order should be accepted by Ameren Illinois Company d/b/a Ameren Illinois and Commonwealth Edison Company to release customer interval data to non-RES third parties;
- The language adopted herein is standard language from which utilities should not deviate for residential customers, except to identify the purpose for accessing the data; and
- Ameren Illinois Company d/b/a Ameren Illinois and Commonwealth Edison Company should release customers' interval usage data electronically upon receipt of the proper customer authorization.

Commission staff was directed to file an updated report, within 24 months of this order, regarding third party access to AMI data, access to interval usage data, and the form of customer authorization required ("Data Authorization Review") and other issues in the implementation of this order and Docket No. 14-0701.

The Commission also approved the following authorization language shall be used as the consent necessary for Commonwealth Edison Company and Ameren Illinois Company d/b/a Ameren Illinois to release customer data to non-RES third parties:

I, [CUSTOMER NAME], understand that [NAME OF THIRD PARTY] seeks access to my electricity usage information. This information includes my electricity usage levels for distinct time periods no longer than 60 minutes to the extent this information has been recorded and retained by [UTILITY].

I authorize [UTILITY] to provide my electricity usage information to [NAME OF THIRD PARTY] solely for the purpose of: [PURPOSE]. I do not authorize my data to be used for purposes other than those I have explicitly authorized in this document.

[NAME OF THIRD PARTY] may disclose my electricity usage information to its contracted third party vendors or its affiliates for this purpose only.

[NAME OF THIRD PARTY], its affiliates, and its third-party vendors will not sell or license my electric usage information to any other party for any purpose.

I authorize [UTILITY] to provide [NAME OF THIRD PARTY] my usage information for the previous 24 months as well as 24 future months. This authorization to access and use my electricity usage information will expire 24 months after this authorization is executed or upon notification by me to [UTILITY] that I have revoked [NAME OF THIRD PARTY]'s authorization to access my usage information.

I understand that I can report any concerns about my rights under this authorization and [NAME OF THIRD PARTY]'s or [UTILITY]'s compliance with its duties under this disclosure to:

**ILLINOIS ATTORNEY GENERAL'S
CONSUMER FRAUD DIVISION**

<http://www.illinoisattorneygeneral.gov/consumers/index.html>

Chicago: 800-386-5438; 800-864-3013 (TTY)
Springfield: 800-243-0618; 877-844-5461 (TTY)
Carbondale: 800-243-0607; 877-675-9339 (TTY)

OR

**ILLINOIS COMMERCE COMMISSION
CONSUMER SERVICES DIVISION**

800-524-0795

Types of Data: *What types of data should the utility collect and share?*

A customer and authorized third party should have access to the customer's usage data, including:

- **Interval Data.** Utilities should provide a customer's usage data in as short intervals as possible, with 15-minute intervals recommended, but never in intervals greater than 1-hour. This includes power (kW) and energy (kWh) at the designated intervals.
- **Power Data.** Utilities should provide data of the customer's demand, power quality, availability, voltage, frequency, current, power factor, or other information generated by a meter and collected by the utility in the course of business.
- **Pricing Data.** Utilities should provide any and all available utility price and rate data for the period of time the customer is being charged that rate, subject to 83 Ill. Admin. Code 450.90 or other applicable law, in a timely manner. For price and rate data that is known in advance (e.g. day-ahead wholesale market prices or time-of-use rates), that rate data should be available to a customer and authorized third party for the duration of the price and rate data availability preceding the effective time.

Once billing-quality usage data is available, the utility should provide access to the customer's monthly aggregate retail electric usage data that is used for billing purposes.

Data Format: *How is data shared?*

Utilities will make available usage data for a customer's most recent billing period in summary form on customer bills. In addition, utilities will make available usage data electronically in the following forms:

- Interval usage data will be provided in an industry-standard or web-standard machine-readable format (e.g. XML).

- Summary usage data can be provided in a format intended to influence specific or general customer behavior (e.g. display of electricity usage during peak-time events such as may be found in home energy reports or other behavior-change programs).

Both types of usage data will be provided including rate or price type for customers on dynamic or time-of-use rate plans (e.g. real-time pricing or peak-time savings programs).

Method of Delivery: *How Should Customers Receive Data?*

Utilities should transfer retail electricity usage data using methods that facilitate ease of access and comport with industry standards, including but not limited to Energy Services Provider Interface (“ESPI”), or other standards-based electronic data exchange interfaces. For authorized third parties that do not require frequent exchange of data, the utility may maintain a separate process for providing bulk or aggregate customer-specific usage data to those third parties.

- **Directly from the meter.** Utilities should be able to provide usage data directly from a meter to devices within a customer’s home capable of receiving usage data from a utility meter. Any and all usage data that is generated and transmitted by the meter should be in machine-readable formats.
- **Directly through the internet.** The utility should deliver usage data through the internet in machine-readable formats using industry-standard interfaces and protocols.
- **Through a web portal.** Utilities may also provide summary usage data, including interval and power data, to customers and authorized third parties through web portals operated by utilities.

Through mobile applications. Utilities may also provide billing and usage data to customers in timely downloadable, comprehensive, presented, and summary data forms through mobile applications operated by utilities.

Timeliness: *When should data be available?*

The utility should deliver usage data to customers and authorized third parties in real-time to the extent practical. At a minimum, however, a utility shall provide interval usage data:

- Within one hour from the conclusion of an interval period when accessed directly from the internet or alternate communications network.
- Within one minute if accessed directly from the meter.

Utilities shall consider opportunities to reduce latency in the delivery of interval data with the goal of sharing interval data with the customer and authorized third parties immediately following the close of the interval.

Where there is a need for utility meter data management systems and billing systems to verify usage data for the purposes of customer billing, such processes should not limit customer access to preliminary data available from a meter as soon as it is available. Customers and authorized

third parties should be able to gain timely access to both preliminary data and billing-quality data.

Data Security: *How should data be secured?*

Data transmission to customers or authorized third parties must be done using industry-standard secure communications and encryption protocols for wireless or network communications (e.g. HTTPS).

Customer-specific data stored by the utility should be secured against unauthorized access using industry-standard cyber security protections. Utilities may require that authorized third parties adhere to the same data security protections and restrictions on customer-specific data or personal customer information as the utility.

Charges for Data Access: Authorized third parties may incur additional charges for the provision of customers' retail electric usage data in a timely, accessible manner described herein, in accordance with Illinois Commerce Commission orders.